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MANUFACTURING METHODS AND TECHNOLOGY (MM&T)  
SPECIFICATIONS FOR MINIATURE CATHODE RAY TUBE(U) THOMAS  
ELECTRONICS INC WAYNE NJ F M BRUND 30 OCT 84  
TEI-A009-16 DAAK70-80-C-0168

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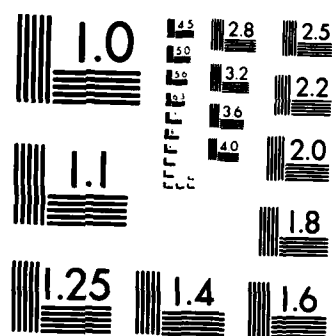
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30 October 1984

Thomas Electronics, Inc.  
100 Riverview Drive  
Wayne, N.J. 07470

## SIXTEENTH QUARTERLY REPORT

for period

1 July 1984 - 30 September 1984

Approved for public release; distribution unlimited

### Manufacturing Methods and Technology (MM&T) Specifications for Miniature Cathode Ray Tube

prepared by

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### **ACKNOWLEDGEMENT**

This project has been accomplished as part of the US Army Manufacturing Methods and Technology (MM&T) Program which has as its objective the timely establishment of manufacturing processes, techniques, or equipment to insure the efficient production of current or future defense programs.

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Manufacturing Methods and Technology (MM&T) Specifications for  
Miniature Cathode Ray Tube

SIXTEENTH QUARTERLY REPORT

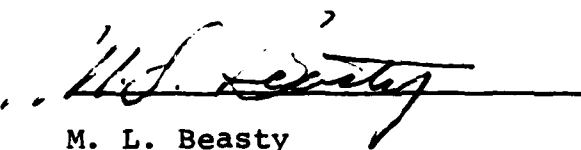
for period

1 July 1984 - 30 September 1984

The object of this study is to develop design, performance, and test specifications for the Miniature Cathode Ray Tube (CRT) assembly suitable for use in the Integrated Helmet and Display Sight System (IHADSS) of the Army Advanced Attack Helicopter (AAH).

Contract Number: DAAK70-80-C-0168

Approved by:

  
M. L. Beasty  
Vice President - Engineering

Approved by:

  
F. M. Bruno  
Program Manager

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The final Environmental Test in Phase II - Confirmatory Samples was completed. The Accelerated Confirmatory Life Test (REL) continued through 1749 hours but was put on hold while the COR reviewed several items.

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## 1.0 PURPOSE

The purpose of this Manufacturing Methods and Technology (MM&T) contract is to establish production methods and facilities required to produce the Miniature Cathode Ray Tube Assembly required for the Integrated Helmet and Display Sight System (IHADSS) of the Army Advanced Attack Helicopter (AAH).

The primary objectives are to develop vendor sources for the required individual components and establish viable production techniques to meet the necessary monthly production rate.

The product produced will be required to meet the mechanical, electrical, performance, and environmental parameters of

MM&T H799838.

## 2.0 GLOSSARY

AAH.....	Advanced Attack Helicopter
ATP.....	Acceptance Test Procedure
CCTV.....	Closed-Circuit Television
CDRL.....	Contract Data Requirements List
COR.....	Contracting Officer's Representative
CRT.....	Cathode Ray Tube
ECN.....	Engineering Change Notice
EM.....	Equipment Manufacturer
EMI.....	Electromagnetic Interference
IHADSS.....	Integrated Helmet and Display Sight System
MERADCOM.....	Mobility Equipment Research and Development Command
MM&T.....	Manufacturing Methods and Technology
MOD.....	Modification (to Contract)
NV&EOL.....	Night Vision & Electro- Optics Laboratory
PCO.....	Procuring Contracting Officer
PERT.....	Program Evaluation and Review Techniques
QA.....	Quality Assurance
QC.....	Quality Control
QTP.....	Qualification Test Procedure
REL.....	Reliability (Testing)
S/N.....	Serial Number
SPEC.....	Specification
TEI.....	Thomas Electronics, Inc.
TIR.....	Total Indicated Range

### 3.0 NARRATIVE AND DATA

The final Environmental Test in Phase II - Confirmatory Samples was completed. This test was for Electromagnetic Compatibility (EMI). These results were under review for approval by the COR.

The Accelerated Confirmatory Life Test (REL) continued. CRT assemblies were REL tested through 1749 hours. The majority of the CRT assemblies did not meet the High Brightness requirement.

There was an in-depth review of all accelerated REL test data by TEI and the COR; and the REL tests were put on hold. The COR had various items under review and consideration, such as evaluation of certain CRT assemblies, test conditions and equipment, and field usage (real-time conditions).

#### 4.0 CONCLUSIONS

1. The final Environmental Test (EMI) in Phase II - Confirmatory Samples was completed.
2. The Accelerated Confirmatory Life Test (REL) was continued through 1749 hours.
3. The majority of the CRT assemblies did not meet the High Brightness requirement; and REL testing was put on hold while the COR and TEI reviewed several factors in the test conditions and equipment and field usage.

## 5.0 PROGRAM FOR NEXT INTERVAL

For the next quarter, TEI's plans are as follows:

1. Restart and continue to conclusion the accelerated REL testing required for Phase II - Confirmatory Samples.
2. Evaluate all data from accelerated REL testing and determine whether to start production for Phase III - Pilot Run Assemblies.
3. Maintain detailed test records for compiling into technical data items required by the contract.
4. Prepare and submit monthly status reports and also the draft and final quarterly reports.
5. Prepare CDRL items required during Phase II and Phase III of the contract.

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